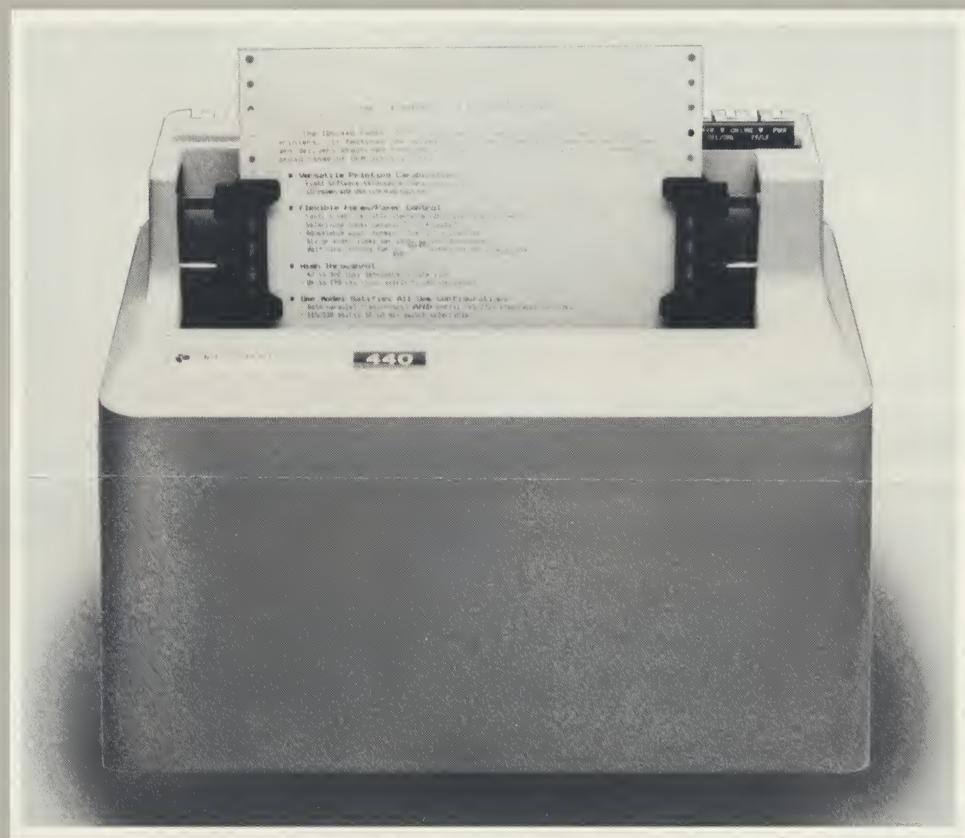


# IDS 440 Impact Printer



## The Paper Tiger™

### Features

- Eight software-selectable character sizes.
- 80 and 132 column features.
- 96 upper- and lower-case characters.
- Continuous duty cycle operation.
- Stepper-motor tractor feed.
- Forms control.
- Multi-part forms.
- Re-inking ribbon system.
- Microprocessor electronics.
- Parallel and serial interface.
- Self diagnostics.
- Paper-out sensor.
- Uni-directional print speeds to 198 char/sec.
- DotPlot™ graphics option, with 2K buffer.

The IDS 440 sets a new standard for low-cost impact printers. It delivers the capability and versatility of printers twice its price. Features that usually cost extra are standard with the powerful IDS 440.

This compact printer is designed especially for small computer systems. That's why it is built with the versatility to handle almost any printing need. And the reliability to stand up to the most demanding operating conditions.

# SPECIFICATIONS

## Printer

|                                 |  |
|---------------------------------|--|
| Controller:                     | Microprocessor controller with both serial RS-232C and Centronics-compatible parallel interfaces.  |
| Power-On Diagnostics:           | Microprocessor program and buffer memory test performed each time power is applied. If a problem is found, the ONLINE indicator is extinguished and an attempt is made to print an error indication. |
| Printing Diagnostics:           | Built-in, operator-initiated self-test prints repeating alphanumeric pattern.  |
| Maximum Print Speed:            | 198 cps instantaneous, with sustained throughput to 95 cps at 16.5 cpi; 120 cps instantaneous, with 57 cps sustained throughput at 10 cpi.   |
| Throughput in Lines Per Minute: | 275 lines per minute with short (10 characters) lines; 42 lines per minute with full lines (132 characters at 16.5 cpi).   |
| Maximum Line Length:            | 73, 80, 96, and 134 characters at 8.3, 10, 12, and 16.5 cpi respectively (8-inch print width).   |
| Paper Width:                    | Maximum width of 9.5 inches to minimum width of 1.75 inches, including pinfeed holes.  |
| Paper Feed:                     | Bottom or rear feed. Internal self-contained roll holder (optional) holds 4.5-inch diameter roll. Fanfold paper stack of approximately 500 sheets can be housed partially within printer.            |
| Paper Form:                     | Pinfeed roll or fanfold paper; widths from 1.75 to 9.5 inches.   |
| Paper Type:                     | Ordinary paper. Single or multiple ply.  |
| Paper Drive:                    | Stepper-motor-driven pinfeed tractor. Slew rate of approximately 3.5 inches per second.  |
| Forms Control:                  | Eight switch-selectable form sizes and automatic perforation skip. Top of form control by operator switch (offline) and ASCII FF control code (online).  |
| Line Spacing:                   | Six or eight lines per inch, switch selectable. Twelve lines per inch software selectable by ASCII VT code.  |
| Character Format:               | 7-x-7 dot matrix normal mode. 8-x-7 dot matrix enhanced mode.  |
| Character Set:                  | Full 96 ASCII characters, upper and lower case.  |
| Character Sizes:                | 0.110 inch high; 8.3, 10, 12 and 16.5 characters per inch, plus enhanced (double width) characters at each density.  |
| Ribbon:                         | Nylon ribbon, 0.5 inch wide on 2-inch spools with automatic reinking mechanism.  |
| Print Head Life Expectancy:     | 100 million characters.  |
| Graphics Dot Plotting:          | (Optional) Full dot pattern control for graphics. Includes expanded 2048-byte buffer.  |

## Interface

|                     |   |
|---------------------|---|
| Electrical:         | Serial RS-232C interface with handshake control via Data Terminal Ready (DTR) signal. Centronics functionally compatible parallel interface.                              |
| Connector Supplied: | 25-pin Male EIA (Cinch DB25P or equivalent). Interface cable optional.  |
| Serial Data Format: | Asynchronous bit serial: 1 start, 8 data/parity, 1 or 2 stop bits.  |
| Character Codes:    | Full 96 ASCII characters, upper and lower case. 12 control codes standard. One optional.  |
| Line Buffering:     | Automatic multiple line buffering. Standard buffer size of 256 bytes; buffer size of 2048 bytes for full CRT screen and graphics buffering supplied with graphics option. |

## Operator Controls/Indicators

|                        |   |
|------------------------|---|
| Power Switch:          | Switch located at rear of printer for turning on AC power.  |
| Power On Indicator:    | When illuminated, indicates power is applied to printer.  |
| Online/Offline Switch: | Sets the printer online or offline.   |
| Online Indicator:      | A steady illuminated condition indicates the printer is online and selected. A flashing condition indicates the printer is online, but has been deselected by a DC3 control code. An off condition indicates the printer has been placed offline. |
| Paper Out Indicator:   | An illuminated condition indicates an out-of-paper status exists. The printer is forced to an offline condition.  |
| Form/Line Feed Switch: | This on-off-on momentary contact switch is used to manually advance the paper.  |
| Formset/Test Switch:   | This on-off-on switch is used to adjust a form position or select the built-in print test.  |

## Configuration Switches

|                             |  |
|-----------------------------|--|
| Interface Mode:             | One switch selects either serial or parallel input mode.   |
| Serial Baud Rate:           | Two switches specify serial speeds of 110, 300, 600 or 1200 bits per second.                                 |
| Default Character Size:     | Two switches specify default character density of 8.3, 10, 12 or 16.5 cpi at power-up.                       |
| Form Length:                | Three switches select 1 of 8 form lengths. Lengths of 3, 3.5, 4, 5.5, 7, 8.5, 11 and 14 inches are provided. |
| Automatic Perforation Skip: | One switch enables/disables an automatic 1-inch skip at form boundary.                                       |
| Automatic Line Feed:        | One switch enables/disables automatic line feed upon reception of a carriage return (CR) control character.  |
| Remote Select:              | One switch enables/disables the remote select feature using the DC1 and DC3 control characters.              |

|                      |   |
|----------------------|---|
| Control Code Enable: | One switch enables/disables graphics mode, enhanced mode, and character density changes via control characters. |
| 50/60 Hz Select:     | One switch specifies 50 or 60 Hz operation (see note below on 50 Hz operation).                                 |

## Programmable Control (ASCII control codes)

|      |   |
|------|---|
| LF:  | Initiates print of line buffer. Does carriage return and line feed.   |
| CR:  | Initiates print of line buffer, and does carriage return. If automatic line feed is enabled, a line feed also is generated. |
| FF:  | Advances paper to top of next form.   |
| VT:  | Same as LF, except advances paper 6 vertical dot positions for dot plotting, subscripting, etc. (12 lines/inch).            |
| SOH: | Selects enhanced print mode (double-width characters).  |
| STX: | Selects normal print mode.  |
| DC1: | Selects printer to receive data and control characters from interface.  |
| DC3: | Deselects printer from interface. Printer ignores all characters but DC1.   |
| FS:  | Selects 8.3 cpi print density.  |
| GS:  | Selects 10 cpi print density.   |
| RS:  | Selects 12 cpi print density.   |
| US:  | Selects 16.5 cpi print density.   |
| ETX: | (Optional) Selects graphics dot plotting mode. Also acts as graphics escape character while in graphics mode.               |

## Physical

|             |   |
|-------------|---|
| Dimensions: | 15.75 inches wide x 12.25 inches high x 12.5 inches deep. |
| Weight:     | 20 pounds.  |
| Power:      | 115/230 VAC, switch selected; 50/60 Hz (See Note).        |

Note: All specifications are for 60 Hz operation. For 50 Hz operation, throughput is decreased by 17 percent.

All specifications are subject to change without notice.



**Integral Data Systems, Inc.**

14 Tech Circle  
Natick, Massachusetts 01760  
(617) 237-7610

# Price List

3/15/80

# Paper Tiger<sup>T.M.</sup>

## Impact Printer

| Product<br>Code | Description  | Price*        |
|-----------------|--|---------------|
| <b>IDS440</b>   | <b>Integral Data Systems Model<br/>440 Printer</b>       | <b>\$ 995</b> |
| <b>IDS440G</b>  | <b>Model 440 Printer with<br/>Graphics and 2K Buffer</b> | <b>\$1094</b> |

\*Base Price. Quantity One. Quantity discounts available.

All prices subject to change without notice and are  
F.O.B. Factory.

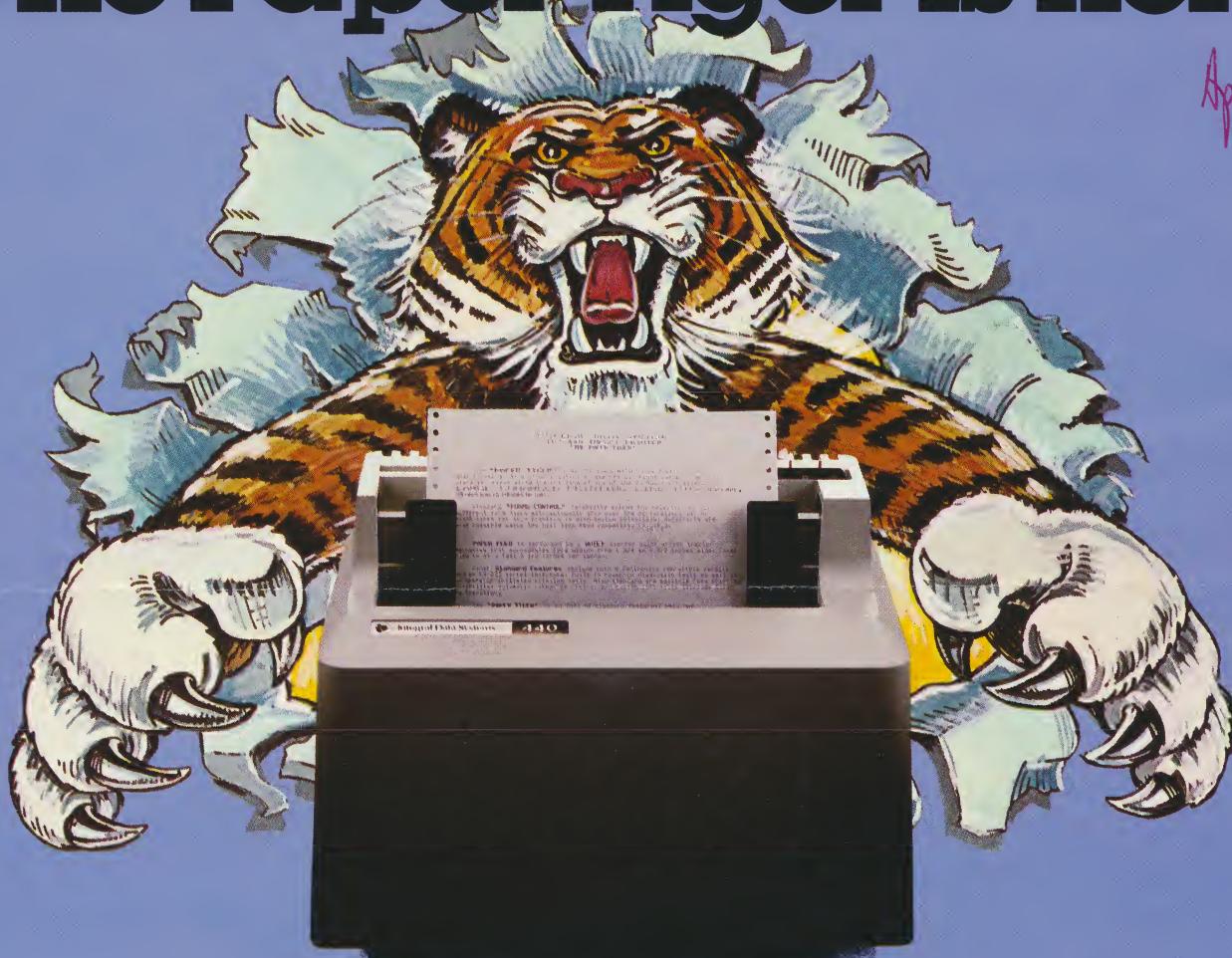


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# The Paper Tiger™ is here.

Apr '80



The Paper Tiger sets a new standard for low-cost impact printers. More capability. More versatility. For just \$995.

You get a full upper and lower case 96-character set. Eight software-selectable character sizes. Plain paper, multiple copies. Forms length control. Parallel and serial interfaces. Multiple line buffer. Tractor feed. Automatic re-inking. 80 and 132 columns.

It's all standard with the Paper Tiger.

#### Unbeatable capability.

The Paper Tiger prints just about any paper form you need. From address labels to multicopy invoices and legal-size reports.

Adjust the tractor width from 1-3/4 to 9-1/2 inches. Choose from 8 switch-selectable forms lengths. Print 6 or 8 lines per inch.

#### Unmatched versatility.

Want graphics? Add the Paper Tiger's software-selectable full dot plotting graphics. Print illustrations, block letters, charts, graphs, and more.

Need a bigger buffer? The Paper Tiger features an optional 2K-byte memory that holds a full 24-by-80

| Feature   | Printer           |            |                    |                       |                  |
|---|-------------------|------------|--------------------|-----------------------|------------------|
|   | Integral Data 440 | Tally 1200 | Lear-Siegler 300   | Texas Instruments 810 | Centronics 779-2 |
| 96-character ASCII set, upper and lower case                        | YES               | OPTION     | YES                | OPTION                | NO               |
| Software-selectable character sizes                                 | YES               | NO         | NO                 | OPTION                | NO               |
| Throughput, lines per minute<br>@ 10 char./line<br>@ 132 char./line | 275<br>42         | 100<br>40  | Data not available | 440<br>64             | 130<br>21        |
| Parallel and RS-232 serial interfaces standard                      | YES               | NO         | NO                 | NO                    | NO               |
| CRT screen buffer   | OPTION            | NO         | OPTION             | NO                    | NO               |
| Footprint (W x D = sq. ft.)   | 1.37              | 3.45       | 3.18               | 3.58                  | 2.44             |
| Weight (lbs.)   | 20                | 64         | 50                 | 55                    | 45               |
| Forms length control  | YES               | OPTION     | YES                | OPTION                | NO               |
| Full dot plotting graphics  | OPTION            | NO         | NO                 | NO                    | NO               |
| Unit Price  | \$995             | \$2500     | \$1995             | \$1895                | \$1350           |

Comparison data from manufacturers' current literature.

CRT screen.

And there's more.

The Paper Tiger is small, lightweight, and compact. That's because it's designed especially to work in small computer systems.

And it's built rugged and simple. For high reliability and easy maintenance. Just like the thousands of IDS printers already in the field.

See for yourself.

Check the comparison chart.

Find out why this Paper Tiger just set a new standard for low-cost impact printers.

For more information, write or call. We'll send you our free brochure. Integral Data Systems, 14 Tech Circle, Natick, MA 01760. (617) 237-7610.



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